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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,714		03/01/2002	Michael Minneman	390772	4803
30955	7590	12/05/2003	EXAMINER		INER
LATHROP	& GAG	E LC	VY, HUNG T		
4845 PEARI SUITE 300	4845 PEARL EAST CIRCLE SUITE 300				PAPER NUMBER
	BOULDER, CO 80301			2828	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

•	'		
		Application No.	Applicant(s)
		10/090,714	MINNEMAN, MICHAEL
	Office Action Summary	Examin r	Art Unit
		Hung T Vy	2828
- Period fo	- The MAILING DATE of this communication app r Reply	ars on the cover sheet with the c	correspondence address
THE N - Exten after S - If the   - If NO - Failur - Any re	DRTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. sions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period version to reply within the set or extended period for reply will, by statute, apply received by the Office later than three months after the mailing of patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tin y within the statutory minimum of thirty (30) day vill apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
1)🛛	Responsive to communication(s) filed on 01 M	larch 2002.	
2a) <u></u> □	This action is <b>FINAL</b> . 2b)⊠ This	action is non-final.	
	Since this application is in condition for allowar closed in accordance with the practice under E		
Disposition	on of Claims		·
4)⊠	Claim(s) <u>1-17</u> is/are pending in the application.		4
	4a) Of the above claim(s) is/are withdraw	i i	Paul IP
5)	Claim(s) is/are allowed.		700
6)⊠	Claim(s) <u>1-17</u> is/are rejected.	a	PAUL IP JPERVISORY PATENT EXAMIN <b>E</b> R
7)	Claim(s) is/are objected to.	St	TECHNOLOGY CENTER 2800
8)[	Claim(s) are subject to restriction and/o	r election requirement.	TECHNOLOGI CLITTER 2000
Application	on Papers		
9) 🗌 🗆	The specification is objected to by the Examine	er.	
10) 🔲 🧻	Γhe drawing(s) filed on is/are: a)☐ acc	epted or b) $\square$ objected to by the I	Examiner.
,	Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).
•	Replacement drawing sheet(s) including the correct	ion is required if the drawing(s) is ob	jected to. See 37 CFR 1.121(d).
11) 🗔 🗆	Γhe oath or declaration is objected to by the Ex	caminer. Note the attached Office	Action or form PTO-152.
Priority u	nder 35 U.S.C. §§ 119 and 120		
* S 13)⊠ A sir	Acknowledgment is made of a claim for foreign All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priori application from the International Bureau ee the attached detailed Office action for a list cknowledgment is made of a claim for domestince a specific reference was included in the first CFR 1.78.	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)). of the certified copies not receive c priority under 35 U.S.C. § 119(a)	on No ed in this National Stage ed. e) (to a provisional application)
	☐ The translation of the foreign language pro	ovisional application has been rec	eived.
	cknowledgment is made of a claim for domesti ference was included in the first sentence of th		
Attachment	(s)		
1) 🔯 Notice	e of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948)		(PTO-413) Paper No(s) atent Application (PTO-152)
	nation Disclosure Statement(s) (PTO-1449) Paper No(s)		

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#### **DETAILED ACTION**

1. In response to the communications dated 03/01/2002, claim 1-17 is pending in this application.

## **Acknowledges**

- 2. According to the rule USC 1.56 (Duty to disclose information material to patentability), the applicant request to provide the references for consideration. The rule U.S.C 1.56 as below:
  - 1.56 Duty to disclose information material to patentability.
- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §
- § 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
  - (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

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- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
  - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
    - (2) It refutes, or is inconsistent with, a position the applicant takes in:
      - (i) Opposing an argument of unpatentability relied on by the Office,

or

(ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
  - (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
  - (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.
  - (e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

[42 FR 5593, Jan. 28, 1977; paras. (d) & (e) - (i), 47 FR 21751, May 19, 1982, effective July 1, 1982; para. (c), 48 FR 2710, Jan. 20, 1983, effective Feb. 27,

1983; paras. (b) and (j), 49 FR 554, Jan. 4, 1984, effective Apr. 1, 1984; paras. (d) and (h),50 FR 5171, Feb. 6, 1985, effective Mar. 8, 1985; para. (e), 53 FR 47808, Nov. 28, 1988, effective Jan. 1, 1989; 57 FR 2021, Jan. 17, 1992, effective Mar. 16, 1992; para. (e) added, 65 FR 54604, Sept. 8, 2000, effective Nov. 7, 2000]

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3. The specification is objected to for the following reason:

The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

## Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 17, the phrase "the method comprising the steps of " renders the claim indefinite because it is not clear. The claim recites only single step as switching the laser source card between selected rails to accept a waveform output from the selected rail for use as laser source drive input. Further, the claim fails to provide step to support modulating a source array in an optical source bank including a modulation controller that provides a plurality of waveform outputs to a rail system and a laser source card. The claim fails to provide step for modulates control and generate waveform.

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5. The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102 in view of the AIPA and H.R. 2215 that forms the basis for the rejections under this section made in the attached Office action:

## A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

Claims 1-7, 10-11 and 17 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Volz et al., U.S. patent No. 6,501,773.

Regarding claim 1, Volz et al. discloses a apparatus comprising: a plurality of laser source channels each including a laser source card having a laser source (102); a modulation controller (110, 112) and it is inherent that all modulation is including a plurality of function generators that are each capable of generating waveforms for use at the laser source channels (102); and a signal pathway connecting the modulation controller with each of the laser source channels (102)(See fig. 1A).

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Regarding claims 2-7, and 10-11, Volz et al. discloses the source modulation system, wherein the signal pathway comprises a number of rail lines connecting the modulation controller with each of the laser source cards, the number of rail lines having one to one correspondence with the function generator on the laser source cards (see column 7, line 31-36 and fig 1A), a programmably controllable (108) rail selection switch for use in switching between selected rail line to provide a selected laser source drive input (106) corresponding to a selected rail line (See fig. 1A, 3B). It is inherent that the modulation controller has a number of waveform input in order to control the wavelength of laser source (See 110, 114, and 112 in fig. 1A).

With respect to claim 17, the methods of modulating a source array in an optical source bank are considered as product by process steps.

#### Claim Rejections - 35 U.S.C. § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth insection 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-9 and 12-16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Volz et al., U.S. patent No. 6,501,773 in view of Sanchez, U.S. Patent No. 6,446,867.

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Regarding claim 8-9 and 12-16, Volz et al. discloses all limitation of apparatus except for the digital signals ground and a gain block. However, Sanchez discloses the digital signals) (see column 1, line 57-60), ground and gain block (242) for adjusting the amplitude of waveforms (see column 8, line 36-45). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Volz et al. to have digital signals, and gain block as taught by Sanchez because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention. Further, Sanchez discloses the external sources to drive the laser (See fig. 4)

#### Conclusion

- 7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.
- 8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

PAUL IP

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800

Hung T. Vy Art Unit 2828 November 24, 2003